

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

9 VAC 5 CHAPTER 40.
EXISTING STATIONARY SOURCES.

PART II.
Emission Standards.

ARTICLE 45.
Emission Standards for
Commercial/Industrial Solid Waste Incinerators (Rule 4-45).

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9 VAC 5-40-6250. Applicability and designation of affected facility.

A. Except as provided in subsections C and D of this section, the affected facilities to which the provisions of this article apply are commercial/industrial solid waste incinerator (CISWI) units that commenced construction on or before November 30, 1999.

B. The provisions of this article apply throughout the Commonwealth of Virginia.

C. Exempted from the provisions of this article are the following:

1. Pathological waste incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of any combination of pathological waste, low-level radioactive waste, or chemotherapeutic waste if the owner:

a. Notifies the board that the unit meets these criteria, and

b. Keeps records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

2. Agricultural waste incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of agricultural wastes if the owner:

a. Notifies the board that the unit meets these criteria, and

b. Keeps records on a calendar quarter basis of the weight of agricultural waste burned, and the weight of all other fuels and wastes burned in the unit.

3. Municipal waste combustion units that meet either of the following:

a. Are regulated under subparts Ea, Eb, or AAAA of 40 CFR Part 60 or Article 46 (9 VAC 5-40-6550 et seq.) or Article 54 (9 VAC 5-40-7950 et seq.) of Part II of 9 VAC 5 Chapter 40.

b. Burn greater than 30 percent municipal solid waste or refuse-derived fuel, as defined in subparts Ea, Eb and AAAA of 40 CFR Part 60 and Article 46 (9 VAC 5-40-6550 et seq.) of Part II of 9 VAC 5 Chapter 40 and have the capacity to burn less than 35 tons (32 megagrams) per day of municipal solid waste or refuse-derived fuel, if the owner:

(1) Notifies the board that the unit meets these criteria, and

(2) Keeps records on a calendar quarter basis of the weight of municipal solid waste burned, and the weight of all other fuels and wastes burned

in the unit.

4. Medical waste incineration units regulated under subpart Ec of 40 CFR Part 60 or Article 44 (9 VAC 5-40-6000 et seq.) of Part II of 9 VAC 5 Chapter 40.

5. Small power production facility units if:

a. The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 USC 796(17)(C));

b. The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity; and

c. The owner notifies the board that the unit meets all of these criteria.

6. Cogeneration facility units if:

a. The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 USC 796(18)(B));

b. The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes; and

c. The owner notifies the board that the unit meets all of these criteria.

7. Hazardous waste combustion units that are either:

a. Required to obtain a permit under § 3005 of the Solid Waste Disposal Act (42 USC § 6901 et seq.), or

b. Regulated under subpart EEE of 40 CFR Part 63.

8. Materials recovery units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.

9. Air curtain incinerators that burn only (i) 100 percent wood waste, (ii) 100 percent clean lumber, or (iii) 100 percent mixture of only any combination of wood waste, clean lumber, or yard waste shall meet the requirements under 9 VAC 5-40-6490.

10. Cyclonic barrel burners.

11. Rack, part, and drum reclamation units.

12. Cement kilns regulated under subpart LLL of 40 CFR Part 63.
13. Sewage sludge incinerator units regulated under subpart O of 40 CFR Part 60.
14. Chemical recovery units burning materials to recover chemical constituents or to produce chemical compounds where there is an existing commercial market for such recovered chemical constituents or compounds.
 - a. Except as provided in subdivision 14 b of this subsection, the following types of units are considered chemical recovery units.
 - (1) Units burning only pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.
 - (2) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.
 - (3) Units burning only wood or coal feedstock for the production of charcoal.
 - (4) Units burning only manufacturing byproduct streams or residues or both containing catalyst metals which are reclaimed and reused as catalysts or used to produce commercial grade catalysts.
 - (5) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds.
 - (6) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes.
 - (7) Units burning only photographic film to recover silver.
 - b. If a chemical recovery unit is not listed in subdivision 14 a of this subsection, the owner of the unit may petition the board to add the unit to the list. The petition shall contain the following:
 - (1) A description of the source of the materials being burned.
 - (2) A description of the composition of the materials being burned, highlighting the chemical constituents in these materials that are recovered.

(3) A description (including a process flow diagram) of the process in which the materials are burned, highlighting the type, design, and operation of the equipment used in this process.

(4) A description (including a process flow diagram) of the chemical constituent recovery process, highlighting the type, design, and operation of the equipment used in this process.

(5) A description of the commercial markets for the recovered chemical constituents and their use.

(6) The composition of the recovered chemical constituents and the composition of these chemical constituents as they are bought and sold in commercial markets.

c. Until the board approves the petition, the incineration unit is subject to this article.

d. If a petition is approved, the board will amend subdivision 14 a to add the unit to the list of chemical recovery units.

15. Laboratory analysis units that burn samples of materials for the purpose of chemical or physical analysis.

D. The provisions of this article do not apply to a CISWI unit if the owner makes changes that meet the definition of modification or reconstruction on or after June 1, 2001, at which point the CISWI unit becomes subject to subpart CCCC of 40 CFR Part 60.

E. If the owner makes physical or operational changes to an existing CISWI unit primarily to comply with this article, subpart CCCC of 40 CFR Part 60 does not apply to that unit. Such changes do not qualify as modifications or reconstructions under subpart CCCC of 40 CFR Part 60.

F. Each owner shall submit an application for a federal operating permit no later than December 1, 2003. If the unit is subject to the federal operating permit program as a result of some triggering requirement(s) other than this article (for example, being a major source), then the unit may be required to apply for and obtain a federal operating permit prior to the deadline in this subsection. If more than one requirement triggers the requirement to apply for a federal operating permit, the 12-month timeframe for filing a permit application is triggered by the requirement which first causes the source to be subject to the federal operating permit program.

G. The provisions of 40 CFR Part 60 and Part 63 cited in this article are applicable only to the extent that they are incorporated by reference in Article 5 (9 VAC 5-50-400 et seq.) of Part II of 9 VAC 5 Chapter 50 and Article 2 (9 VAC 5-60-90 et seq.) of

Part II of 9 VAC 5 Chapter 60.

H. The requirement of subdivision C 7 of this section with regard to obtaining a permit under § 3005 of the Solid Waste Disposal Act (42 USC § 6901 et seq.) may be met by obtaining a permit from the department as required by 9 VAC 20 Chapter 60.

9 VAC 5-40-6260. Definitions.

A. For the purpose of applying this article in the context of the Regulations for the Control and Abatement of Air Pollution and related uses, the words or terms shall have the meaning given them in subsection C of this section.

B. As used in this article, all terms not defined herein shall have the meaning given them in 9 VAC 5 Chapter 10, unless otherwise required by context.

C. Terms Defined

"Agricultural waste" means vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations.

"Air curtain incinerator" means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.

"Auxiliary fuel" means natural gas, liquefied petroleum gas, fuel oil, or diesel fuel.

"Baseline compliance date" means the earlier of (i) December 1, 2003, or (ii) the date of publication of the CISWI federal plan (Subpart III of 40 CFR Part 62) in the Federal Register.

"Bag leak detection system" means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

"Calendar quarter" means three consecutive months, not overlapping, beginning on January 1, April 1, July 1, or October 1.

"Calendar year" means 365 (or 366 consecutive days in leap years) consecutive days starting on January 1 and ending on December 31.

"Chemotherapeutic waste" means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

"Clean lumber" means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

"Commercial and industrial solid waste incineration (CISWI) unit" means any combustion device that combusts commercial and industrial waste, as defined in this section. The boundaries of a CISWI unit are defined as, but not limited to, the commercial or industrial solid waste fuel feed system, grate system, flue gas system, and bottom ash. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial solid waste hopper (if applicable) and extends through two areas:

1. The combustion unit flue gas system, which ends immediately after the last combustion chamber.
2. The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

"Commercial and industrial waste" means solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

"Contained gaseous material" means gases that are in a container when that container is combusted.

"Cyclonic barrel burner" means a combustion device for waste materials that is attached to a 55 gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air.

"Deviation" means any instance in which an affected source subject to this article, or an owner of such a source:

1. Fails to meet any requirement or obligation established by this article, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;

2. Fails to meet any term or condition that is adopted to implement an applicable requirement in this article and that is included in the federal operating permit for any affected source required to obtain such a permit; or

3. Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this article during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this article.

"Dioxins/furans" means tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

"Discard" means, for purposes of this article, to burn in an incineration unit without energy recovery.

"Drum reclamation unit" means a unit that burns residues out of drums (e.g., 55 gallon drums) so that the drums can be reused.

"Energy recovery" means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

"Federal operating permit" means a permit issued under Article 1 (9 VAC 5-80-50 et seq.) or Article 3 (9 VAC 5-80-360 et seq.) of Part II of 9 VAC 5 Chapter 80.

"Fabric filter" means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media (e.g., baghouse).

"Low-level radioactive waste" means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 USC 2014(e)(2)).

"Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

"Modification" or "modified CISWI unit" means a CISWI unit that has been changed later than June 1, 2001 and that meets one of the following criteria:

1. The cumulative cost of the changes over the life of the unit

exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

2. Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

"Part reclamation unit" means a unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused.

"Particulate matter" means total particulate matter emitted from CISWI units as measured by Reference Method 5 or 29.

"Pathological waste" means waste material consisting of only human or animal remains, anatomical parts, anatomical tissue, the bags and containers used to collect and transport the waste material, and animal bedding (if applicable).

"Rack reclamation unit" means a unit that burns the coatings off of racks that are used to hold small items for application of a coating. The unit burns the coating overspray off of the rack so the rack can be reused.

"Reconstruction" means the rebuilding of a CISWI unit which meets the following criteria:

1. The reconstruction begins on or after June 1, 2001, and
2. The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

"Refuse-derived fuel" means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel, including (i) low-density fluff refuse-derived fuel through densified refuse-derived fuel, and (ii) pelletized refuse-derived fuel.

"Shutdown" means the period of time after all waste has been combusted in the primary chamber.

"Solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from

industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 USC 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 USC 2014). For purposes of this article, solid waste does not include the waste burned in the units described in 9 VAC 5-40-6250 C.

"Standard conditions" means, when referring to units of measure, a temperature of 68 degrees Fahrenheit (20 degrees Centigrade) and a pressure of 1 atmosphere (101.3 kilopascals).

"Startup period" means the period of time between the activation of the system and the first charge to the unit.

"Wet scrubber" means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics), or to absorb and neutralize acid gases, or both.

"Wood waste" means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include:

1. Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.
2. Construction, renovation, or demolition wastes.
3. Clean lumber.

9 VAC 5-40-6270. Standard for particulate matter.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any particulate emissions in excess of 70 milligrams per dry standard cubic meter, measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6280. Standard for carbon monoxide.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any carbon monoxide emissions in excess of 157 parts per million by dry volume, measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6290. Standard for dioxins/furans.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any dioxin/furan emissions in excess of 0.41 nanograms per dry standard cubic meter (toxic equivalency basis), measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6300. Standard for hydrogen chloride.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any hydrogen chloride emissions in excess of 62 parts per million by dry volume, measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6310. Standard for sulfur dioxide.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any sulfur dioxide emissions in excess of 20 parts per million by dry volume, measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6320. Standard for nitrogen oxides.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any nitrogen oxide emissions in excess of 388 parts per million by dry volume, measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6330. Standard for lead.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any lead emissions in excess of 0.04 milligrams per dry standard cubic meter, measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6340. Standard for cadmium.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any cadmium emissions in excess of 0.004 milligrams per dry standard cubic meter, measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6350. Standard for mercury.

No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any mercury emissions in excess of 0.47 milligrams per dry standard cubic meter, measured at 7 percent oxygen, dry basis at standard conditions.

9 VAC 5-40-6360. Standard for visible emissions.

A. The provisions of Article 1 (9 VAC 5-40-60 et seq.) of 9 VAC 5 Chapter 40

(Emission Standards for Visible Emissions) apply except that the provisions in subsection B of this section apply instead of 9 VAC 5-40-80.

B. No owner or other person shall cause or permit to be discharged into the atmosphere from any CISWI any visible emissions which exhibit greater than 10 percent opacity.

9 VAC 5-40-6370. Standard for fugitive dust/emissions.

The provisions of Article 1 (9 VAC 5-40-60 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Fugitive Dust/Emissions, Rule 4-1) apply.

9 VAC 5-40-6380. Standard for odor.

The provisions of Article 2 (9 VAC 5-40-130 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Odor, Rule 4-2) apply.

9 VAC 5-40-6390. Standard for toxic pollutants.

The provisions of Article 4 (9 VAC 5-60-200 et seq.) of 9 VAC 5 Chapter 60 (Emission Standards for Toxic Pollutants, Rule 6-4) apply.

9 VAC 5-40-6400. Operator training and qualification.

A. No CISWI unit shall be operated unless a fully trained and qualified CISWI unit operator is accessible, whether at the facility or is capable of being at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, the procedures in subsection J of this section shall be followed.

B. Operator training and qualification shall be obtained through a program approved by the board or by completing the requirements included in subsection C of this section.

C. Training shall be obtained by completing an incinerator operator training course that includes, at a minimum, the following:

1. Training on the following subjects:
 - a. Environmental concerns, including types of emissions.
 - b. Basic combustion principles, including products of combustion.

- c. Operation of the specific type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures.
- d. Combustion controls and monitoring.
- e. Operation of air pollution control equipment and factors affecting performance (if applicable).
- f. Inspection and maintenance of the incinerator and air pollution control devices.
- g. Actions to correct malfunctions or conditions that may lead to malfunction.
- h. Bottom and fly ash characteristics and handling procedures.
- i. Applicable federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards.
- j. Pollution prevention.
- k. Waste management practices.

2. An examination designed and administered by the instructor.

3. Written material covering the training course topics that can serve as reference material following completion of the course.

D. The operator training course shall be completed by the later of the following dates:

1. One year after the baseline compliance date.

2. Six months after CISWI unit startup.

3. Six months after an employee assumes responsibility for operating the CISWI unit or assumes responsibility for supervising the operation of the CISWI unit.

E. Operator qualification shall be obtained by completing a training course that satisfies the criteria under subsection B of this section. Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under subdivision C 2 of this section.

F. To maintain operator qualification, the operator shall complete an annual review or refresher course covering, at a minimum, the following topics:

1. Update of regulations.
2. Incinerator operation, including startup and shutdown procedures, waste charging, and ash handling.
3. Inspection and maintenance.
4. Responses to malfunctions or conditions that may lead to malfunction.
5. Discussion of operating problems encountered by attendees.

G. Lapsed operator qualification shall be renewed when the operator:

1. For a lapse of less than 3 years, completes a standard annual refresher course described in subsection F of this section, or
2. For a lapse of 3 years or more, repeats the initial qualification requirements in subsection E of this section.

H. Site-specific documentation shall be available at the facility and readily accessible for all CISWI unit operators that addresses the topics described in subdivisions H 1 through H 10 of this subsection. The owner shall maintain this information and the training records required by subsection I 3 of this section in a manner that they can be readily accessed and are suitable for inspection upon request.

1. Summary of the applicable standards under this article.
2. Procedures for receiving, handling, and charging waste.
3. Incinerator startup, shutdown, and malfunction procedures.
4. Procedures for maintaining proper combustion air supply levels.
5. Procedures for operating the incinerator and associated air pollution control systems within the standards established under this article.
6. Monitoring procedures for demonstrating compliance with the incinerator operating limits.
7. Reporting and recordkeeping procedures.
8. The waste management plan required under 9 VAC 5-40-6410.
9. Procedures for handling ash.

10. A list of the wastes burned during the emission test.

I. A program for reviewing the following information shall be established for each incinerator operator:

1. The initial review of the information listed in subsection H of this section shall be conducted by the later of the following dates:

- a. One year after the baseline compliance date.
- b. Six months after CISWI unit startup.
- c. Six months after being assigned to operate the CISWI unit.

2. Subsequent annual reviews of the information listed in subsection H of this section shall be conducted no later than 12 months following the previous review.

3. The following information shall be maintained:

a. Records showing the names of CISWI unit operators who have completed review of the information in subsection H of this section as required by this subsection, including the date of the initial review and all subsequent annual reviews.

b. Records showing the names of the CISWI operators who have completed the operator training requirements under subsection C of this section, met the criteria for qualification under subsection E of this section, and maintained or renewed their qualification under subsection F or G of this section. Records shall include documentation of training, the dates of the initial refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

c. For each qualified operator, the telephone or pager number at which they can be reached during operating hours.

J. If all qualified operators are temporarily not accessible (i.e., not at the facility and not able to be at the facility within 1 hour), one of the following procedures shall be followed:

1. When all qualified operators are not accessible for more than 8 hours, but less than 2 weeks, the CISWI unit may be operated by other plant personnel familiar with the operation of the CISWI unit who have completed a review of the information specified in subsection H of this section within the past 12 months. The period when all qualified operators were not accessible shall be recorded, and this deviation shall be included in the annual report as specified in 9 VAC 5-40-6480 G.

2. When all qualified operators are not accessible for 2 weeks or more, the owner shall perform the following:

a. Notify the board of this deviation in writing within 10 days, including the cause of the deviation, what is being done to ensure that a qualified operator is accessible, and the anticipated date when a qualified operator will be accessible.

b. Submit a status report to the board every 4 weeks outlining what is being done to ensure that a qualified operator is accessible, the anticipated date when a qualified operator will be accessible, and a request for approval from the board to continue operation of the CISWI unit. The first status report shall be submitted 4 weeks after the board has been notified of the deviation under subdivision 2 a of this subsection. If the board disapproves the request to continue operation of the CISWI unit, the CISWI unit may continue operation for 90 days. After 90 days, the CISWI unit shall cease operation. Operation of the unit may resume if the following requirements are met:

(1) A qualified operator is accessible as required under subsection A of this section.

(2) The board is notified that a qualified operator is accessible and that operation is resuming.

K. The requirements of subsection B of this section with regard to obtaining operator training qualifications through a program approved by the board may be met by obtaining a license from the Board for Waste Management Facility Operators. All training and licensing shall be conducted in accordance with Chapter 22.1 (§ 54.1-2209 et seq.) of Title 54.1 of the Code of Virginia, and with 18 VAC 155 Chapter 20.

L. No owner of an affected facility shall allow the facility to be operated at any time unless a person is on duty who is responsible for the proper operation of the facility and has a license from the Board for Waste Management Facility operators in the correct classification. No provision of this article shall relieve any owner from the responsibility to comply in all respects with the requirements of Chapter 22.1 (§ 54.1-2209 et seq.) of Title 54.1 of the Code of Virginia, and with 18 VAC 155 Chapter 20.

9 VAC 5-40-6410 Waste management plan.

A. The owner of an affected facility shall prepare a written waste management plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream in order to reduce or eliminate toxic emissions from incinerated waste.

B. The waste management plan shall be submitted no later than six months after the baseline compliance date.

C. The waste management plan shall include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan shall identify any additional waste management measures; and the owner of an affected facility shall implement those measures considered practical and feasible, based on the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

9 VAC 5-40-6420. Compliance schedule.

A. The owner of a CISWI unit planning to continue operation and achieve compliance with this article by the date one year after the baseline compliance date shall complete the following:

1. Comply with the operator training and qualification requirements and inspection requirements, if applicable, of 9 VAC 5-40-6400 by the date one year after the baseline compliance date.

2. Submit a waste management plan no later than six months after the baseline compliance date.

3. Achieve final compliance by the date one year after the baseline compliance date. The final compliance increment of progress shall be achieved by incorporation of all process changes and completion of retrofit construction of control devices, as specified in the final control plan, in order that the affected unit brought online operates all necessary process changes and air pollution control devices as designed.

4. Conduct the initial emission test no later than 90 days after the final compliance date specified in subdivision 3 of this subsection.

5. Submit an initial report, including the results of the initial emission test, no later than 60 days following the initial emission test as required by 9 VAC 5-40-6480 E.

B. The owner of a CISWI unit planning to continue operation and achieve compliance with this article after the date one year after the baseline compliance date and before the date two years after the baseline compliance date shall (i) petition for an extension of the final compliance date specified in subdivision A 3 of this section by meeting the requirements of 9 VAC 5-40-6421, and shall have been granted the extension by the board; and (ii) meet the increments of progress in subsection C of this section. The final compliance increment of progress shall be achieved by completion of the following:

1. Comply with the operator training and qualification requirements and inspection requirements, if applicable, of 9 VAC 6-40-6400 by the date one year after the baseline compliance date.

2. Submit of a waste management plan no later than six months after the baseline compliance date.

3. Achieve final compliance by the date two years after the baseline compliance date. The final compliance increment of progress shall be achieved by incorporation of all process changes and completion of retrofit construction of control devices, as specified in the final control plan, in order that the affected unit brought online operates all necessary process changes and air pollution control devices as designed.

4. Conduct the initial emission test no later than 90 days after the final compliance date specified in subdivision 3 of this subsection.

5. Submit an initial report, including the result of the initial emission test, no later than 60 days following the initial emission test as required by 9 VAC 5-40-6480 E.

C. The owner of a CISWI unit planning to achieve compliance later than one year after the baseline compliance date shall meet the following increments of progress:

1. Submit and maintain a final control plan by the date six months after the baseline compliance date.

2. Achieve final compliance by the date two years after the baseline compliance date.

D. The owner shall notify the board as increments of progress are achieved. Notification of achievement of increments of progress shall include the following:

1. Notification that the increment of progress has been achieved.

2. Any items required to be submitted with each increment of progress.

3. Signature of the owner of the CISWI unit.

E. Notifications for achieving increments of progress shall be postmarked no later than 10 business days after the compliance date for the increment.

F. If an increment of progress is not met, the owner of the affected source shall submit a notification to the board postmarked within 10 business days after the date for that increment of progress. The owner shall continue to submit reports each subsequent calendar month until the increment of progress is met.

G. The control plan increment of progress shall meet the following requirements:

1. Submittal of the final control plan, which shall include the following:

- a. A description of the devices for air pollution control and process changes that will be used to comply with the emission limitations and other requirements of this article,
- b. The type(s) of waste to be burned,
- c. The maximum design waste burning capacity,
- d. The anticipated maximum charge rate, and
- e. If applicable, the petition for site-specific operating limits under 9 VAC 5-40-6430 D.

2. Maintenance of a copy of the final control plan onsite.

9 VAC 5-40-6421. Compliance schedule extension.

The owner of a CISWI unit planning to continue operation and achieve compliance with this article after the date one year after the baseline compliance date and before the date two years after the baseline compliance date shall petition the board for an extension using the following procedures:

1. The request for an extension shall be submitted to the board on or before the date two months after the baseline compliance date.
2. The request shall include documentation of the analyses undertaken to support the need for an extension, including an explanation of why the final compliance date specified in 9 VAC 5-40-6420 A 3 cannot be met, and why the requested extension date is needed to provide sufficient time for design, fabrication, and installation of the emissions control systems necessary to meet the requirements of this article. No request will be granted based upon the avoidance of costs.

9 VAC 5-40-6422. Shutdown and restart.

A. The owner of a CISWI unit planning to permanently shut down rather than comply with the complete set of requirements in this article shall complete the following:

1. If shutdown is planned to be completed by the date one year after the baseline compliance date, then shutdown must occur no later than the date one year after the baseline compliance date. The federal operating permit requirements of 9 VAC 5-40-6250 F shall be met regardless of when shutdown occurs.
2. If shutdown is planned but cannot be achieved by the date one year after the baseline compliance date, the owner of a CISWI unit shall petition the board for

and be granted an extension using the following procedures:

a. Submit the request for an extension to the board by the date two months after the baseline compliance date. The request shall include the following:

(1) Documentation of the analyses undertaken to support the need for an extension, including an explanation of why the requested extension date is sufficient for shutdown while the date one year after the baseline compliance date is not sufficient. No request will be granted based upon the avoidance of costs. Documentation shall include an evaluation of the option to transport waste offsite to a commercial or municipal waste treatment or disposal facility or both on a temporary or permanent basis.

(2) Documentation of incremental steps of progress, including dates for completing the increments of progress, that will be taken toward shutdown.

b. Shutdown shall occur no later the date two years after the baseline compliance date.

3. Compliance with the operator training and qualification requirements and inspection requirements, if applicable, of 9 VAC 5-40-6400 shall be achieved by the date one year after the baseline compliance date.

4. A legally binding closure agreement shall be submitted to the board by the date six months after the baseline compliance date. The closure agreement shall specify the date by which operation will cease. The closure date shall be no later than the date two years after the baseline compliance date.

5. The federal operating permit requirements of 9 VAC 5-40-6250 F shall be met regardless of when shutdown occurs.

B. If the CISWI unit is temporarily shut down and restarted for the purpose of continuing operation, the following requirements shall be met. The federal operating permit requirements of 9 VAC 5-40-6250 F shall be met at the time the unit is restarted.

1. If operation is planned to continue and compliance is planned to be achieved by the date one year after the baseline compliance date, the requirements of 9 VAC 5-40-6420 A shall apply.

2. If operation is planned to continue and compliance is planned to be achieved on or before the date two years after the baseline compliance date, the requirements of 9 VAC 5-40-6420 B shall be met. The owner of a CISWI unit shall have first requested an extension from the initial compliance date by following the requirements of 9 VAC 5-40-6421, and shall have been granted the extension by the board.

3. If the unit is restarted after the date one year after the baseline compliance date and resumes operation, but the owner has not previously requested an extension by meeting the requirements of 9 VAC 5-40-6421, the owner shall complete the requirements of 9 VAC 5-40-6420 A at the time the unit is restarted. Upon restarting the unit, the owner shall have incorporated all process changes and completed retrofit construction of control devices in order that the affected unit brought online operates all necessary process changes and air pollution control devices as designed.

C. For purposes of this section, the term "shutdown" shall have the meaning specified in 9 VAC 5 Chapter 10.

9 VAC 5-40-6430. Operating limits.

A. The owner of a facility using wet scrubbers shall meet operating limits as established in subdivisions A 1 and A 2 of this subsection.

1. Operating limits for operating parameters shall be in accordance with Table 4-45A.

TABLE 4-45A
OPERATING LIMITS FOR WET SCRUBBERS

Operating parameters	Operating limits	Minimum frequencies		
		Data measurement	Data recording	Averaging time
Charge rate	Maximum charge rate	Continuous	Every hour	Daily (batch units). 3-hour rolling (continuous and intermittent units) ^a
Pressure drop across the wet scrubber or amperage to wet scrubber	Minimum pressure drop or amperage	Continuous	Every 15 minutes	3-hour rolling ^a
Scrubber liquor flow rate	Minimum flow rate	Continuous	Every 15 minutes	3-hour rolling ^a
Scrubber liquor pH	Minimum pH	Continuous	Every 15 minutes	3-hour rolling ^a

^a Calculated each hour as the average of the previous 3 operating hours.

2. Operating limits for wet scrubbers shall be established during the initial emission test as follows:

a. Maximum charge rate shall be calculated using one of the following procedures:

(1) For continuous and intermittent units, the maximum charge rate is 110 percent of the average charge rate measured during the most recent emission test demonstrating compliance with all applicable emission limitations.

(2) For batch units, the maximum charge rate is 110 percent of the daily charge rate measured during the most recent emission test demonstrating compliance with all applicable emission limitations.

b. Minimum pressure drop across the wet scrubber, which is calculated as 90 percent of the average pressure drop across the wet scrubber measured during the most recent emission test demonstrating compliance with the particulate matter emission limitations; or minimum amperage to the wet scrubber, which is calculated as 90 percent of the average amperage to the wet scrubber measured during the most recent emission test demonstrating compliance with the particulate matter emission limitations.

c. Minimum scrubber liquor flow rate, which is calculated as 90 percent of the average liquor flow rate at the inlet to the wet scrubber measured during the most recent emission test demonstrating compliance with all applicable emission limitations.

d. Minimum scrubber liquor pH, which is calculated as 90 percent of the average liquor pH at the inlet to the wet scrubber measured during the most recent emission test demonstrating compliance with the hydrogen chloride emission limitation.

B. Operating limits established during the initial emission test shall be met on the date the initial emission test is required or completed, whichever is earlier.

C. If a fabric filter is used to comply with the emission limitations, each fabric filter system shall be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If longer than 1 hour to initiate corrective action transpires, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

D. If an air pollution control device other than a wet scrubber is used, or if emissions are controlled in some other manner, the owner shall petition the board for specific operating limits to be established during the initial emission test and continuously monitored thereafter. The initial emission test shall not be conducted until after the petition has been approved by the board. The petition shall include the following:

1. Identification of the specific parameters proposed to be used as additional operating limits.

2. A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will limit emissions of regulated pollutants.

3. A discussion of how the upper and/or lower values for these parameters which will establish the operating limits on these parameters will be established.

4. A discussion identifying the methods to be used to measure and the instruments to be used to monitor these parameters, and the relative accuracy and precision of these methods and instruments.

5. A discussion identifying the frequency and methods for recalibrating the instruments used for monitoring these parameters.

9 VAC 5-40-6440. Facility and control equipment maintenance or malfunction.

A. The provisions of 9 VAC 5-20-180 (Facility and control equipment maintenance or malfunction) apply to the emission standards set forth in 9 VAC 5-40-6370, 9 VAC 5-40-6380, and 9 VAC 5-40-6390.

B. The provisions of 9 VAC 5-20-180 A, B, C, D, H, and I apply to the emission limits in 9 VAC 5-40-6270 through 9 VAC 5-40-6360.

C. The emission limitations and operating limits apply at all times except during CISWI unit startups, shutdowns, or malfunctions. Each malfunction shall last no longer than 3 hours. This subsection shall not apply to the emission standards set forth in 9 VAC 5-40-6370, 9 VAC 5-40-6380, and 9 VAC 5-40-6390.

9 VAC 5-40-6450. Test methods and procedures.

A. The provisions governing test methods and procedures shall be as follows:

1. With regard to the emissions standards in 9 VAC 5-40-6370, 9 VAC 5-40-6380, and 9 VAC 5-40-6390, the provisions of 9 VAC 5-40-30 (Emission testing) apply.

2. With regard to the emission limits in 9 VAC 5-40-6270 through 9 VAC 5-40-6360, the following provisions apply:

a. 9 VAC 5-40-30 D and G.

b. 40 CFR 60.8, with the exception of paragraph (a).

c. Subsections B through H of this section.

B. All emission tests shall consist of a minimum of three test runs conducted under conditions representative of normal operations.

C. The owner shall document that the waste burned during the emission test is representative of the waste burned under normal operating conditions by maintaining a log of the quantity of waste burned (as required in 9 VAC 5-40-6480 B 2 a) and the types of waste burned during the emission test.

D. All emission tests shall be conducted using the following minimum run durations and reference methods:

1. For particulate matter: 3-run average (1 hour minimum sample time per run), Reference Method 5 or 29.

2. For carbon monoxide: 3-run average (1 hour minimum sample time per run), Reference Method 10, 10A, or 10B.

3. For dioxins/furans: 3-run average (1 hour minimum sample time per run), Reference Method 23.

4. For hydrogen chloride: 3-run average (1 hour minimum sample time per run), Reference Method 26A.

5. For sulfur dioxide: 3-run average (1 hour minimum sample time per run), Reference Method 6 or 6c.

6. For nitrogen oxides: 3-run average (1 hour minimum sample time per run), Reference Methods 7, 7A, 7C, 7D, or 7E.

7. For lead: 3-run average (1 hour minimum sample time per run), Reference Method 29.

8. For cadmium: 3-run average (1 hour minimum sample time per run), Reference Method 29.

9. For mercury: 3-run average (1 hour minimum sample time per run), Reference Method 29.

10. For visible emissions: six-minute average, Reference Method 9.

E. Reference Method 1 shall be used to select the sampling location and number of traverse points.

F. Reference Method 3A or 3B shall be used for gas composition analysis, including measurement of oxygen concentration. Reference Method 3A or 3B shall be used simultaneously with each method.

G. All pollutant concentrations, except for opacity, shall be adjusted to 7 percent oxygen using the following equation:

$$C_{adj} = C_{meas} (20.9 - 7) / (20.9 - \% O_2)$$

where:

C_{adj} = pollutant concentration adjusted to 7 percent oxygen;

C_{meas} = pollutant concentration measured on a dry basis;

$(20.9 - 7)$ = 20.9 percent oxygen - 7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

H. The owner of an affected facility shall determine the dioxins/furans toxic equivalency as follows:

1. Measure the concentration of each dioxin/furan tetra- through octa-congener emitted using EPA Method 23.

2. For each dioxin/furan congener measured in accordance with subdivision 1 of this subsection, multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 4-45B of this article.

TABLE 4-45B.
TOXIC EQUIVALENCY FACTORS

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
Octachlorinated dibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1

1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
Octachlorinated dibenzofuran	0.001

3. Sum the products calculated in accordance with subdivision 2 of this subsection to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

9 VAC 5-40-6460. Compliance.

A. The provisions governing compliance shall be as follows:

1. With regard to the emissions standards in 9 VAC 5-40-6370, 9 VAC 5-40-6380, and 9 VAC 5-40-6390, the provisions of 9 VAC 5-40-20 (Compliance) apply.

2. With regard to the emission limits in 9 VAC 5-40-6270 through 9 VAC 5-40-6360, the following provisions apply:

a. 9 VAC 5-40-20 B, C, D, and E.

b. 40 CFR 60.11.

c. Subsections B and C of this section.

B. The owner of an affected facility shall conduct an initial emission test to determine compliance with the emission limitations in 9 VAC 5-40-6270 through 9 VAC 5-40-6360 and to establish operating limits using the procedures in 9 VAC 5-40-6430. The initial emission test shall be conducted using the reference methods and procedures in 9 VAC 5-40-6450, and shall be conducted no later than 90 days after the final compliance date specified in 9 VAC 5-40-6420 A or B, as applicable.

C. The owner of an affected facility shall conduct an annual emission test for particulate matter, hydrogen chloride, and opacity for each CISWI unit to determine compliance with the emission limitations under 9 VAC 5-40-6270 through 9 VAC 5-40-6360 as follows:

1. The annual emission test shall be conducted using the test methods and procedures in 9 VAC 5-40-6450.

2. The operating limits specified in 9 VAC 5-40-6430 shall be continuously monitored. Operation above the established maximum or below the established minimum operating limits constitutes a deviation from the established operating limits. Three-hour rolling average values shall be used to determine compliance (except for baghouse leak detection system alarms) unless a different averaging period is established under 9 VAC 5-40-6430 D. Operating limits do not apply during emission tests.

3. Only the same types of waste used to establish operating limits shall be burned during the emission test.

4. Annual emission tests for particulate matter, hydrogen chloride, and opacity shall commence within 12 months following the initial emission test. Subsequent annual emission tests shall be conducted within 12 months following the previous one.

5. The owner of an affected facility may conduct emission testing less often if the unit has test data for at least 3 years, and all emission tests for the pollutant (particulate matter, hydrogen chloride, or opacity) over 3 consecutive years show that the unit complies with the emission limitation. In this case, no emission test is required for that pollutant for the next 2 years. The owner shall conduct an emission test during the third year and no more than 36 months following the previous emission test.

6. If the CISWI unit continues to meet the emission limitation for particulate matter, hydrogen chloride, or opacity, the owner may conduct emission tests for these pollutants every third year, but each test shall be within 36 months of the previous test.

7. If an emission test shows a deviation from an emission limitation for particulate matter, hydrogen chloride, or opacity, the owner shall conduct annual emission tests for that pollutant until all emission tests over a 3-year period show compliance.

8. A repeat emission test may be conducted at any time to establish new values for the operating limits. The board may request a repeat emission test at any time. The emission test shall be repeated if the feed stream is different than the feed streams used during any emission test used to demonstrate compliance.

9 VAC 5-40-6470. Monitoring.

A. The provisions governing monitoring shall be as follows:

1. With regard to the emissions standards in 9 VAC 5-40-6370, 9 VAC 5-40-6380, and 9 VAC 5-40-6390, the provisions of 9 VAC 5-40-40 (Monitoring) apply.

2. With regard to the emission limits in 9 VAC 5-40-6270 through 9 VAC 5-40-6360, the following provisions apply:

- a. 9 VAC 5-40-40 A and F.
- b. 40 CFR 60.13.
- c. Subsections B through F of this section.

B. The owner of an affected facility using a wet scrubber to comply with the emission limitations under 9 VAC 5-40-6270 through 9 VAC 5-40-6360 shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the value of the operating parameters used to determine compliance with the operating limits listed in Table 4-45A. These devices (or methods) shall measure and record the values for these operating parameters at the frequencies indicated in Table 4-45A at all times except as specified in subsection E of this section.

C. The owner of an affected facility using a fabric filter to comply with the requirements of this article, shall install, calibrate, maintain, and continuously operate a bag leak detection system as follows:

1. A bag leak detection system shall be installed and operated for each exhaust stack of the fabric filter.

2. Each bag leak detection system shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturers' written specifications and recommendations.

3. The bag leak detection system shall be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

4. The bag leak detection system sensor shall provide output of relative or absolute particulate matter loadings.

5. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

6. The bag leak detection system shall be equipped with an alarm system that sounds automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.

7. For positive pressure fabric filter systems, a bag leak detection system shall be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector shall be installed downstream of the fabric filter.

8. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

D. The owner of an affected facility using something other than a wet scrubber to comply with the emission limitations under 9 VAC 5-40-6270 through 9 VAC 5-40-6260 shall install, calibrate (to the manufacturers' specifications), maintain, and operate the

equipment necessary to monitor compliance with the site-specific operating limits established using the procedures in 9 VAC 5-40-6430 D.

E. Except for monitoring malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), the owner of an affected facility shall conduct all monitoring at all times the CISWI unit is operating.

F. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this article, including data averages and calculations, shall not be used. All the data collected during all other periods shall be used in assessing compliance with the operating limits.

9 VAC 5-40-6480. Recordkeeping and reporting.

A. The provisions governing recordkeeping and reporting shall be as follows:

1. With regard to the emissions standards in 9 VAC 5-40-6370, 9 VAC 5-40-6380, and 9 VAC 5-40-6390, the provisions of 9 VAC 5-40-50 (Notification, records and reporting) apply.

2. With regard to the emission limits in 9 VAC 5-40-6270 through 9 VAC 5-40-6360, the following provisions apply:

- a. 9 VAC 5-40-50 F and H.
- b. 40 CFR 60.7.
- c. Subsections B through J of this section.

B. The following records, as applicable, shall be maintained for a period of at least 5 years:

1. Calendar date of each record.
2. Records of the following data:
 - a. The CISWI unit charge dates, times, weights, and hourly charge rates.
 - b. Liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable.
 - c. Pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as

applicable.

d. Liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable.

e. For affected CISWI units that establish operating limits for controls other than wet scrubbers under 9 VAC 5-40-6430 D, the owner shall maintain data collected for all operating parameters used to determine compliance with the operating limits.

f. If a fabric filter is used to comply with the emission limitations, the owner shall record the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. The owner shall also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in 9 VAC 5-40-6430 C.

3. Identification of calendar dates and times for which monitoring systems used to monitor operating limits were inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks). Identify the operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken.

4. Identification of calendar dates, times, and durations of malfunctions, and a description of the malfunction and the corrective action taken.

5. Identification of calendar dates and times for which data show a deviation from the operating limits in Table 4-45A or a deviation from other operating limits established under 9 VAC 5-40-6430 D with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

6. The results of the initial, annual, and any subsequent emission tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable. Retain a copy of the complete emission test report including calculations.

7. Records showing the names of CISWI unit operators who have completed review of the information in 9 VAC 5-40-6400 H as required by 9 VAC 5-40-6400 I, including the date of the initial review and all subsequent annual reviews.

8. Records showing the names of the CISWI operators who have completed the operator training requirements under 9 VAC 5-40-6400 A, met the criteria for qualification under 9 VAC 5-40-6400 E, and maintained or renewed their qualification under 9 VAC 5-40-6400 F or G. Records shall include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent

renewals of such qualifications.

9. For each qualified operator, the telephone or pager number at which they can be reached during operating hours.

10. Records of calibration of any monitoring devices as required under 9 VAC 5-40-6470 A through C.

11. Equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment.

12. The information listed in 9 VAC 5-40-6400 H.

13. On a daily basis, a log of the quantity of waste burned and the types of waste burned.

C. All records shall be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the board.

D. The owner of an affected facility shall submit the waste management plan no later than the date specified in 9 VAC 5-40-6410 B.

E. The information specified in subdivisions E 1 through E 3 of this subsection shall be submitted no later than 60 days following the initial emission test. All reports shall be signed by the facilities manager.

1. The complete emission test report for the initial emission test results obtained under 9 VAC 5-40-6460 B, as applicable.

2. The values for the site-specific operating limits established in 9 VAC 5-40-6430.

3. If a fabric filter is being used to comply with the emission limitations, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by 9 VAC 5-40-6470 C.

F. An annual report shall be submitted no later than 12 months following the submission of the information in subsection E of this section. Subsequent reports shall be submitted no more than 12 months following the previous report. If the unit is subject to permitting requirements under the federal operating permit program, the permit may require submittal of these reports more frequently.

G. The annual report required under subsection F of this section shall include

the items listed in this subsection. If a deviation from the operating limits or the emission limitations occurs, deviation reports shall also be submitted as specified in 9 VAC 5-40-6480 H.

1. Company name and address.
2. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
3. Date of report and beginning and ending dates of the reporting period.
4. The values for the operating limits established pursuant to 9 VAC 5-40-6430.
5. If no deviation from any applicable emission limitation or operating limit has been reported, a statement that there was no deviation from the emission limitations or operating limits during the reporting period, and that no monitoring system used to determine compliance with the operating limits was inoperative, inactive, malfunctioning or out of control.
6. The highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable, for each operating parameter recorded for the calendar year being reported.
7. Information recorded under subdivisions B 2 f and B 3 through 5 of this section for the calendar year being reported.
8. If an emission test was conducted during the reporting period, the results of that test.
9. If the requirements of 9 VAC 5-40-6460 C 5 or 6 were met, and no emission test was conducted during the reporting period, a statement that the facility met the requirements of 9 VAC 5-40-6460 C 5 or 6, and, therefore, no emission test during the reporting period was required.
10. Documentation of periods when all qualified CISWI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

H. Deviation reports shall be submitted in accordance with the following:

1. A deviation report shall be submitted if (i) any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit established under this article, (ii) the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or

(iii) an emission test was conducted that deviated from any emission limitation.

2. The deviation report shall be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data collected during the second half of the calendar year (July 1 to December 31).

3. For any pollutant or parameter that deviated from the emission limitations or operating limits specified in this article, the following items shall be included in the deviation report:

a. The calendar dates and times the unit deviated from the emission limitations or operating limit requirements.

b. The averaged and recorded data for those dates.

c. Duration and causes of each deviation from the emission limitations or operating limits, and corrective actions taken.

d. A copy of the operating limit monitoring data during each deviation and any emission test report that documents the emission levels.

e. The dates, times, number, duration, and causes for monitoring downtime incidents other than downtime associated with zero, span, and other routine calibration checks.

f. Whether each deviation occurred during a period of startup, shutdown, or malfunction, or during another period.

4. Deviations from the requirement to have a qualified operator accessible shall be reported as follows:

a. If all qualified operators are not accessible for 2 weeks or more, the owner shall:

(1) Submit a notification of the deviation within 10 days that includes a statement of what caused the deviation, a description of what is being done to ensure that a qualified operator is accessible, and the anticipated date when a qualified operator will be available; and

(2) Submit a status report to the board every 4 weeks that includes a description of what is being done to ensure that a qualified operator is accessible, the anticipated date when a qualified operator will be accessible, and request for approval from the board to continue operation of the CISWI unit.

b. If the unit was shut down by the board under the provisions of 9 VAC 5-40-6400 J 2 a due to a failure to provide an accessible qualified operator, the owner shall notify the board that the unit will resume operation once a qualified operator is accessible.

I. Initial, annual, and deviation reports shall be submitted electronically or in paper format, postmarked on or before the submittal due dates.

J. Semiannual or annual reporting dates may be changed with the approval of the board in accordance with the procedures in 40 CFR 60.19(c).

9 VAC 5-40-6490. Requirements for air curtain incinerators.

A. The owner of an affected air curtain incinerator that plans to continue operation shall achieve final compliance by the date one year after the baseline compliance date. An air curtain incinerator that continues to operate after the date one year after the baseline compliance date without being in compliance with this article shall be considered to be in violation of this article.

B. In order to achieve final compliance, the owner shall complete all equipment changes and retrofit installation of control devices so that, when the affected air curtain incinerator is placed into service, all necessary equipment and air pollution control devices operate as designed and meet the opacity limits of subsection D of this section.

C. The following shall be met if an air curtain incinerator is to be shut down:

1. If an incinerator is shut down but will be restarted prior to the final compliance date specified in subsection A of this section, the owner shall (i) achieve final compliance by the date one year after the baseline compliance date, and (ii) meet the federal operating permit requirements of 9 VAC 5-40-6250 F on the date the incinerator restarts operation.

2. If an incinerator is shut down but will be restarted after the date one year after the baseline compliance date, the owner shall (i) complete any needed emission control retrofits, (ii) meet the opacity limits of subsection D of this section, and (iii) meet the federal operating permit requirements of 9 VAC 5-40-6250 F on the date the incinerator restarts operation.

3. If an incinerator is permanently shut down, the owner shall (i) submit a closure notification, including the date of closure, to the board 180 days after the final compliance date specified in subsection A of this section, and (ii) meet the federal operating permit requirements of 9 VAC 5-40-6250 F regardless of when shutdown occurs.

D. After the date the initial emission test is required or completed (whichever is

earlier), no owner or other person shall cause or permit to be discharged into the atmosphere from any affected air curtain incinerator any emissions in excess of the following limits:

1. The opacity limitation is 10 percent (6-minute average), except as described in subdivision 2 of this subsection.

2. The opacity limitation is 35 percent (6-minute average) during the startup period that is within the first 30 minutes of operation.

E. Except during malfunctions, the requirements of this article shall apply at all times, and each malfunction shall not exceed 3 hours.

F. Air curtain incinerators shall meet the following requirements to determine compliance with the opacity limitation:

1. Compliance with the opacity limitation shall be determined using Reference Method 9.

2. An initial emission test for opacity shall be conducted no later than 90 days after the final compliance date specified in 9 VAC 5-40-6490 A.

3. After the initial emission test for opacity, annual emission tests shall be conducted no more than 12 calendar months following the date of the previous emission test.

G. The owner of an air curtain incinerator shall maintain records and submit reports as follows:

1. Records of results of all initial and annual emission tests for opacity shall be kept onsite in either paper copy or electronic format, unless the board approves another format, for at least 5 years.

2. All records shall be made available for submittal to the board or for an inspector's onsite review.

3. An initial report shall be submitted no later than 60 days following the initial emission test for opacity that includes the following information:

- a. The types of materials to be combusted.
 - b. The results (each 6-minute average) of the initial emission tests for opacity.

4. Annual emission test results for opacity shall be submitted within 12

months following the previous report.

5. Initial and annual emission test reports for opacity shall be submitted as electronic or paper copy on or before the applicable submittal date. A copy shall be maintained onsite for a period of 5 years.

H. For purposes of this section, the term "shutdown" shall have the meaning specified in 9 VAC 5 Chapter 10.

9 VAC 5-40-6500. Registration.

The provisions of 9 VAC 5-20-160 (Registration) apply.

9 VAC 5-40-6510. Permits.

A permit may be required prior to beginning any of the activities specified below if the provisions of 9 VAC 5 Chapter 50 and 9 VAC 5 Chapter 80 apply. Owners contemplating such action should review those provisions and contact the appropriate regional office for guidance on whether those provisions apply.

1. Construction of a facility.
2. Reconstruction (replacement of more than half) of a facility.
3. Modification (any physical change to equipment) of a facility.
4. Relocation of a facility.
5. Reactivation (restart-up) of a facility.
6. Operation of a facility.

HISTORICAL NOTES:

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